

Update to Green Building Policy for Conditional Zoning Applications

Environmental Stewardship Advisory Board

May 18, 2023

Draft Staff Presentation

Proposed Policy Update Elements

- I. Energy Performance**
- II. Electric Vehicle Readiness**
- III. Climate Action Planning**

I. Energy Performance

Current Energy Policy for Rezoning

- **Requires 20% more energy efficient feature in plans as compared to ASHRAE 90.1 or equivalent standard**
- **Adopted by Council in 2007**
- **Applies to all conditional use zoning applications with special use permits (formerly the most common application for large projects)**
- **Voluntarily accepted by applicants as part of conditional zoning process**

Current Energy Policy for Rezonings

Benefits of current policy:

- + Drives energy performance and sustainable design for majority of large development projects**
- + Tied to familiar standard that gets updated on a regular basis (ASHRAE)**

Current Energy Policy for Rezonings

Challenges of current policy:

- Approach is customized to Chapel Hill**
- No prescriptive path to follow, so applicants often hire specialists to create pre-construction energy models to demonstrate compliance with policy**
- ASHRAE 90.1 does not apply to low-rise residential**

Goals for Updated Policy for Rezoning

- **Make the process more predictable and streamlined for everyone involved**
- **Find recognizable, 3rd party standards that get updated over time**
- **Offer applicants the flexibility to use either a prescriptive or performance pathway for demonstrating compliance**
- **Knowing the grid will get “cleaner” with the addition of renewables, find comparable standards that balance performance with affordability**

Proposed Green Building Policy for Conditional Zoning Applications

New Buildings Institute 40% Stretch Energy Standard

- Applies to commercial buildings, including large multifamily**
- 40% energy improvement over ASHRAE 90.1-2013, IECC 2015, and national model energy codes**
- Offers prescriptive and performance paths**
- Designed for cities looking to advance climate action through code amendments or policy incentives**

Proposed Green Building Policy for Conditional Zoning Applications

Energy Star 3.1

- **Applies to residential**
- **Nationally recognized, above-code standard that produces high-efficiency construction with certification**
- **10-15% more efficient building than code**
- **Offers prescriptive and performance paths**
- **Updated periodically for stricter requirements**
- **Note: majority of large development is now commercial buildings of one type or another**

II. Electric Vehicle Readiness

Current Guidance for Electric Vehicle (EV) Readiness

For development with 50 parking spaces or more:

- **3% of spaces will have level 2 charging installed**
- **20% of spaces will be EV-ready (paneling, conduit, etc.)**

Proposed Guidance for Electric Vehicle (EV) Readiness

	Raceway/ Conduit to Parking Space	Dedicated Panel Capacity	Circuit wiring (and breaker)	Junction Box/ Receptacle	Station Installed
EVSE Capable	X				
EVSE Ready	X	X	X	X	
EVSE Installed	X	X	X	X	X

Proposed Policy for Electric Vehicle (EV) Readiness

Development Type	Parking Space Requirements	Provision
Single Family Homes & Townhomes, Duplexes with Private Garages	No minimum threshold	Each unit with on-site parking shall be provided a minimum of 1 EVSE-ready space
Multifamily Dwellings (including mixed use)	10 spaces or more	Each unit with on-site parking shall be provided a minimum of 1 EVSE-capable space
Non-residential	10 spaces or more	5% EVSE installed (rounded up) 25% EVSE ready (rounded up)

Proposed Guidance for Electric Vehicle (EV) Readiness

What would change under the new proposal?

- Provisions broken out by development type**
- Percentages for installed and future capacity increase with non-residential projects**
- Increased readiness for each residential unit with on-site parking**

Proposed Guidance for Electric Vehicle (EV) Readiness

On April 25th, the Transportation and Connectivity Advisory Board voted unanimously in support of the draft EV Readiness terminology and provisions with specific recommendations to:

- Provide guidance for ADA access**
- Increase non-residential provisions to 5% installed, 25% EV-ready**
- Indicate a “round up” for fractions of spaces**

III. Climate Action Planning

Proposed Project-Specific Climate Action Plan Element

Today, applicants submit an “Energy Management Plan.”

Under this proposal, each applicant would voluntarily submit a project-specific “Climate Action Plan” that describes how the project supports the Town’s adopted Climate Action and Response Plan.

Staff could development a template/checklist to make this simpler and consistent across projects.

Proposed Green Building Policy for Conditional Zoning Applications

Climate Action topics could include:

Buildings & Energy

- NBI 40% Stretch Energy Standard or EnergyStar 3.1
- all-electric building(s) and/or all-electric building(s) ready
- solar and/or solar-ready building(s)
- sustainable building materials (source, reuse, durability)
- interior and exterior LED lighting only (3000 Kelvin or lower for exterior)
- International Dark-Sky Association approved exterior lighting or equivalent
- WaterSense rated fixtures and equipment only
- ENERGY STAR rated appliances and equipment only

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text = April 11 ESAB interest

Proposed Green Building Policy for Conditional Zoning Applications

Climate Action topics could include:

Transportation & Land Use

- EV readiness provisions as applicable
- sustainable transportation choices (transit, biking, walking, etc.)
- sustainable transportation infrastructure (bus stop, bike rack, etc.)

Water, Wastewater, & Natural Resources

- natural resource conservation (water features, native plants, habitat, etc.)
- native and drought-tolerant landscape plantings only
- no irrigation or non-potable irrigation only
- rainwater harvesting and/or gray water for non-potable reuse
- on-site recycling, composting and/or collection services

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Proposed Green Building Policy for Conditional Zoning Applications

Climate Action topics could include:

Resiliency

- storm event design for stormwater management system
- green infrastructure (trees, bioswales, constructed wetlands, etc.)
- vegetative or light-colored (high albedo) roof materials
- light-colored (high albedo) impervious surfaces
- invasive species removal